

# SpeedStream®

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**Dual USB/Ethernet Router**

**with SecureRoute™**

**Model: SpeedStream 5667**

## User's Guide



Part No. 007-0141-002

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  - B.** After receiving an RMA, the end user shall ship the product, including power supplies and cable, where applicable, freight or postage prepaid and insured, to EFFICIENT at 4849 Alpha Road, Dallas Texas 75244, U.S.A. Within five (5) days notice from EFFICIENT, the end user shall provide EFFICIENT with any missing items or, at EFFICIENT's sole option, EFFICIENT will either (a) replace missing items and charge the end user or (b) return the product to the end user freight collect. The end user shall include a return address, daytime phone number and/or fax. The RMA number must be clearly marked on the outside of the package.
  - C.** Returned Products will be tested upon receipt by EFFICIENT. Products that pass all functional tests will be returned to the end user.
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## SpeedStream Dual USB/Ethernet Router User's Guide

### Model 5667

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EFFICIENT will not honor, and will consider the warranty voided, if: (1) the seal or serial number on the Product have been tampered with; (2) the Product's case has been opened; or (3) there has been any attempted or actual repair or modification of the Product by anyone other than an EFFICIENT authorized service provider.

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Efficient Networks, Inc.

4849 Alpha Road

Dallas, TX 75244

U.S.A.

Attn: Customer Service

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## Chapter 1 Introduction

Congratulations on your purchase of the SpeedStream® Dual USB/Ethernet Router with SecureRoute™. Siemens is proud to provide you with a powerful yet simple communication device for connecting your local area network (LAN) to the Internet.

# About the SpeedStream Dual USB/Ethernet Router

This SpeedStream router provides high-speed Internet and corporate network access to small offices, networked home offices, and branch offices. If you are working from a branch office, the router provides a fast and effective means of communicating over a remote LAN with the main office. This SpeedStream router can also be used to connect the corporate local area network (LAN) to the Internet over the wide area network (WAN).

## Features and Benefits

The SpeedStream Dual USB/Ethernet Router with SecureRoute™ provides the flexibility of connecting your computer via the Ethernet port, the USB port, or both! Discrete IP addresses allow two different computers to simultaneously connect to the Ethernet and USB interfaces. Plug and Play USB installation means you can easily install the router on any computer running Windows® 98, 98 SE, ME, 2000 or XP.

SecureRoute® provides advanced protection for secure Internet connections. Network Address Port Translation (NAPT) shields private IP addresses from public access.

Plug and Play integration with an intuitive graphical user interface (GUI) makes installation virtually effortless. Web-based local and remote management tools simplify operation and support.

- Routing:** RFC 2864 (formerly 1483) Bridged and Routed Ethernet over ATM PVCs  
RFC 2364 Point-to-Point Protocol (PPP) over ATM PVCs (PPPoA)  
RFC 2516 PPP over Ethernet (PPPoE)  
RFC 2225 (formerly 1577) Classical IP over ATM
- Bridging:** IEEE 802.1.d Transparent Learning Bridges (dynamic learning of up to 1000 addresses)  
Spanning Tree support
- Management:** Intuitive, Web-based GUI management access  
SNMP support  
Comprehensive hardware diagnostics  
Local and remote management console

## Applications

The SpeedStream Dual USB/Ethernet Router with SecureRoute® provides many advanced features and functionality:

- **LAN Access** – Provides connectivity via USB or Ethernet connection, simplifying network setup for homes and small offices.
- **Shared IP Address** – Provides Internet access for up to 253 users with a single shared IP address, allowing multiple users to simultaneously browse the Web.
- **Port Forwarding** – Allows you to set up LAN-side WEB, FTP, telnet, etc. servers at your site while securing your network from direct attack by hackers. Provides more flexible management by allowing you to change internal IP addresses without affecting outside access to your network.
- **Smart Tracking** – Intelligently monitors NAPT – unfriendly traffic and open ports accordingly.
- **Firewall Security** – Supports 3 conveniently pre-set levels of firewall security.
- **Stateful Inspection Firewall** – Blocks common hackers attacks, including IP Spoofing, Land Attack, Ping to Death, IP with zero length, Smurf Attack, UDP port loopback, Snork Attack, TCP null scan, and TCP SYN flooding, and provides many other security features.
- **Virtual Private Network** – Supports pass-through of the three most commonly used VPN protocols: PPTP, L2TP and IPSec, allowing remote users to establish a secure connection to a corporate network.

## General Safety Guidelines

When using the SpeedStream router, observe the following safety guidelines:

- Never install telephone wiring during a storm.
- Avoid using a telephone during an electrical storm. Lightning increases the risk of electrical shock.
- Do not install telephone jacks in wet locations and never use the product near water.
- Do not exceed the maximum power load ratings for the product; otherwise, you risk dangerous overloading of the power circuit.









## Chapter 2



# Installing the Router

Before installing the SpeedStream® Dual USB/Ethernet Router with SecureRoute™, verify that you have all the items listed under “Package Contents.” If any items are missing or damaged, contact your local Siemens distributor. After installing the router, refer to the subsequent chapters in this document for additional instructions on configuring network and router settings.

## Package Contents

By default, we have chosen not to ship the serial cable and the cross-over cable.

	SpeedStream 5667 ADSL Router
	(Optional, depending upon service provider) Line filters; two-to-one adapter
	Power supply for a 220v or 110v electrical outlet
	Telephone cable—This cable is the DSL cable that will be used for your Internet connection. The end connectors are 4-pin connectors and are smaller than those of the 8-pin 10BASE-T Ethernet cables.
	Ethernet 10BASE-T straight-through cable— This cable is used to connect your modem directly to an Ethernet port on your PC.
	Ethernet 10BASE-T crossover cable—This cable, labeled as “x-over,” connects to the Ethernet ports on your PC and router and is used for an Ethernet connection.
	Serial cable — This cable is used to connect to the serial ports on your PC and router.
	USB cable—This cable is used if connecting to the router via a USB connection.

	SpeedStream installation CD-ROM
	Documentation: Quick-Start Guide, Safety and Certifications Information

## Minimum System Requirements

Make sure your PC is equipped at minimum with the following:

- A network adapter card that supports Ethernet 10BASE-T/half duplex (if using Ethernet connectivity option)
- Operating system that supports TCP/IP over Ethernet
- Internet Explorer or Netscape versions 4.0 or later
- If connecting to the router via USB, your system must be equipped with the following:
  - Windows® 98, Windows® 98 Second Edition (SE), Windows® 2000 Professional, Windows® Millennium Edition (ME), or Windows XP
  - 32 MB RAM
  - Pentium-compatible 166 MHz processor for USB installation (or higher, depending upon Operating System)
  - 10 MB available hard disk space (for USB installation)

## Hardware Description

Access speed to the Internet depends on your service type. Full-rate ADSL provides up to 8 Mbps downstream and 640 Mbps upstream. G.lite provides up to 1.5 Mbps downstream and 512 Kbps upstream

This SpeedStream router includes an LED display on the front panel for system power and port indicators that simplify installation and network troubleshooting. The rear panel provides port connections (DSL, USB, Console, 10Base-T), power connections, the Power switch (PWR-SW), and the Reset button.

## Hardware Features

### AAL and ATM Support

VCI 0-65535 address range

### Connectors

ADSL interface: RJ-11

Ethernet interface: RJ-45

Console interface: 5-pin MiniDIN RS-232

USB Type B interface

### Standards Compliance

DMT, ADSL

## LED Indicators

After powering on the router, all LED indicator lights turn a solid green. The LED behavior will change depending on the various connection states and data activity of the router. Refer to the table below for details:

	power	adsl	act	eth	usb
<b>Unlit</b>	Off	DSL not connected	DSL not connected	Ethernet port not connected; check Ethernet cable connection if using Ethernet interface	USB port not connected; check USB cable connection if using USB interface
<b>Solid</b>	On	Ready for data traffic	N/A	Ethernet port connected to LAN	USB port connected to host
<b>Blinking</b>	N/A	Searching for signal	DSL traffic flow	Ethernet traffic flow	USB traffic flow
<b>All Blinking</b>	Post failure				

## Hardware Installation

### Before Starting

Please collect the following information from your ISP before setting up the SpeedStream Dual USB/Ethernet Router:

- An ISP account (may include user name and password for PPPoE or PPPoA service)
- IP address for your ISP's gateway and domain name servers (for non-PPP/non-DHCP services).
- ISP authentication type or script (if not PAP/CHAP).
- IP address and subnet mask (for fixed IP accounts only).

Confirm that you received all the items listed in the previous section, “Package Contents”; then position the SpeedStream router at any convenient location in your office or home. No special wiring or cooling requirements are needed. You should, however, comply with the safety guidelines specified in Chapter 1, “Introduction.”

## Basic Installation Procedure

1. Install line filters (if provided).
2. Connect the cables.
3. Power up the modem and verify port status.
4. Configure network settings on your computer.
5. Configure the router via the Web interface.
6. Reboot the computer if prompted.

Another important step is to record the current router configuration in the worksheets provided in Appendix A. Although the router is already configured for your particular network, it is important to record this configuration in case it must be restored for any reason.

### Installing Line Filters

Because DSL may share the same physical line as your telephone, it may be necessary to separate the two signals so they do not interfere with each other. This is accomplished through line filters, which prevent DSL traffic from disrupting the voice signal on the phone line, and vice versa. Follow the procedure below to install line filters on any device (phones, fax machines, caller ID boxes) that shares the same phone number as the DSL line. (Note: This section may not apply to you. Consult your provider if you are unsure.)

Two types of line filters may be used. The wall mount filter is installed onto the telephone wall plate for use with wall-mounted telephones. The in-line filter is connected to the telephone wall plate and the telephone cord is connected into the filter. A two-to-one adapter is available and may be used if more than one device needs to be connected to the telephone wall plate.



#### In-Line Filter

For each device that shares the DSL phone number:

1. Unplug the device's cord from the phone jack.
2. Plug the filter into the phone jack.
3. Plug the phone cord (or other device cord) into the filter.



### Wall-Mount Filter

For a wall-mounted phone, install a wall mount filter:

1. Remove the phone.
2. Connect the wall mount filter to the wall plate.
3. Reconnect the phone.



### Two-to-One Adapter

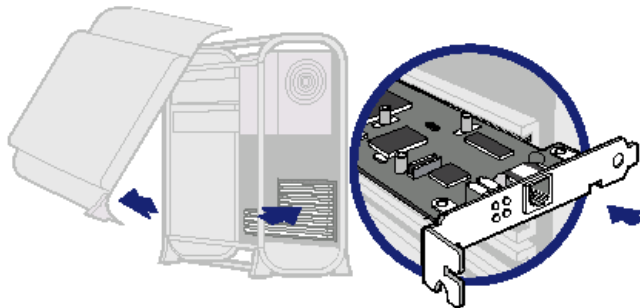
If your DSL router and another device will share the same phone jack, install a two-to-one adapter:

1. Plug the two-to-one adapter into the phone jack.
2. Plug a line filter into one of the sockets of the two-to-one adapter. The other socket will be used to connect the DSL cable.
3. Plug the telephone (or other device) cord into the line filter.

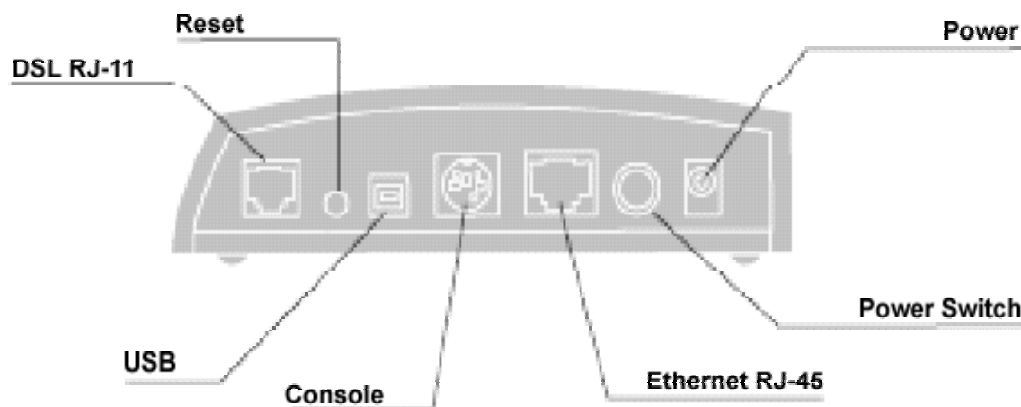
## Connecting the Cables

The SpeedStream router may be connected to either an existing USB port or an Ethernet port. Both connection methods are detailed in this section.

If you choose to attach the SpeedStream modem via the Ethernet Interface, you will need to install an Ethernet adapter if your computer does not already have one installed. Refer to your Ethernet adapter manufacturer's documentation for complete installation instructions.

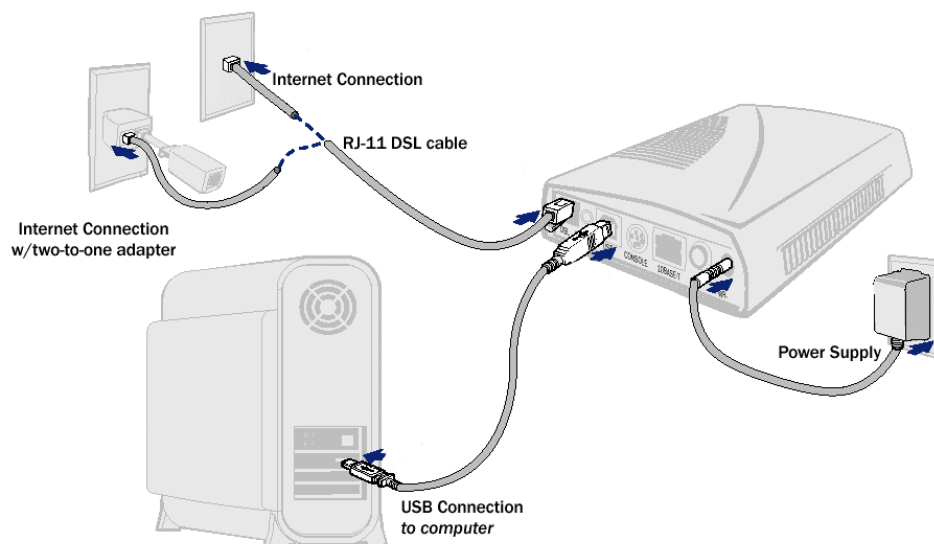


Determine the cable to use for your physical connection, and then follow the instructions for the appropriate installation method. The following illustration shows the connectors on the rear panel of the SpeedStream router.



## USB Installation Method

The router power button should be in the OFF (out) position before proceeding:



1. Connect the USB cable to the USB port at the rear of the router.
2. Connect the other end to the USB port on your computer.
3. Plug the phone cable into the DSL port on the router.
4. Plug the other end of the cable into the phone jack.

### Note:

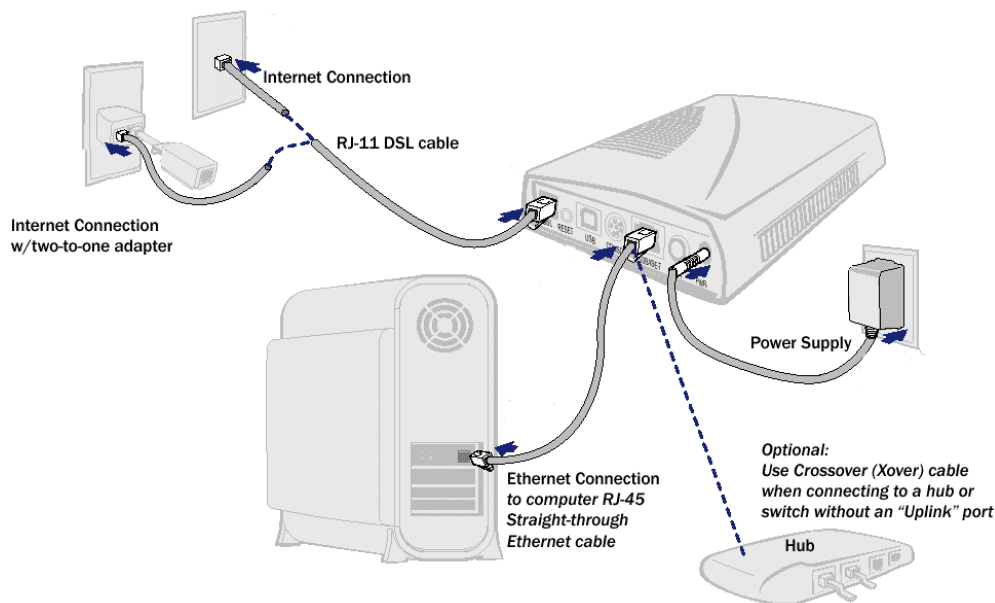
If using the two-to-one adapter, plug the cable into the open socket, that should be already be connected to the phone jack.

5. Plug the power adapter into the power outlet and router.
6. Power on the computer; then power on the router.

**Note:**

If connecting via USB, the Plug-and-Play process for installing the USB drivers begins as soon as you turn on your computer and the router device is discovered. Insert the SpeedStream CD-ROM and follow the instructions on the screens to install the drivers.

## Ethernet Installation Method



1. Connect the Ethernet straight through cable to the Ethernet port on the router.
2. Connect the other end of the Ethernet cable to the Ethernet port on your computer.
3. Plug the phone cable into the DSL port on the router.
4. Plug the other end of the phone cable into the phone jack.

**Note:**

If using a two-to-one adapter, plug the cable into the open socket.

5. Plug the power adapter onto the power outlet and router.
6. Power on the computer; then power on the router.

There is no router software installation required when using the Ethernet connection method. Refer to your Internet Service Provider's instructions for installing their software and/or connecting to the Internet.

You are now ready to configure the TCP/IP settings as detailed in the next chapter.

## Chapter 3

# Configuring Network Settings

To access the Internet through the SpeedStream Dual USB/Ethernet Router, the TCP/IP protocol must be installed on your computer and configured with the same IP address and subnet as the router. If TCP/IP is not already installed on your computer, refer to your system documentation or online help for instructions.

The default network settings for this SpeedStream router are:

IP Address: 192.168.254.254  
Subnet Mask: 255.255.255.0  
User Name: admin  
Password: admin

You can change these settings to comply with your network requirements; however, you must first configure at least one computer to access the router's Web interface (see Chapter 4, "Configuring the Router"). The Web interface can be used in conjunction with either the USB or Ethernet connection method.

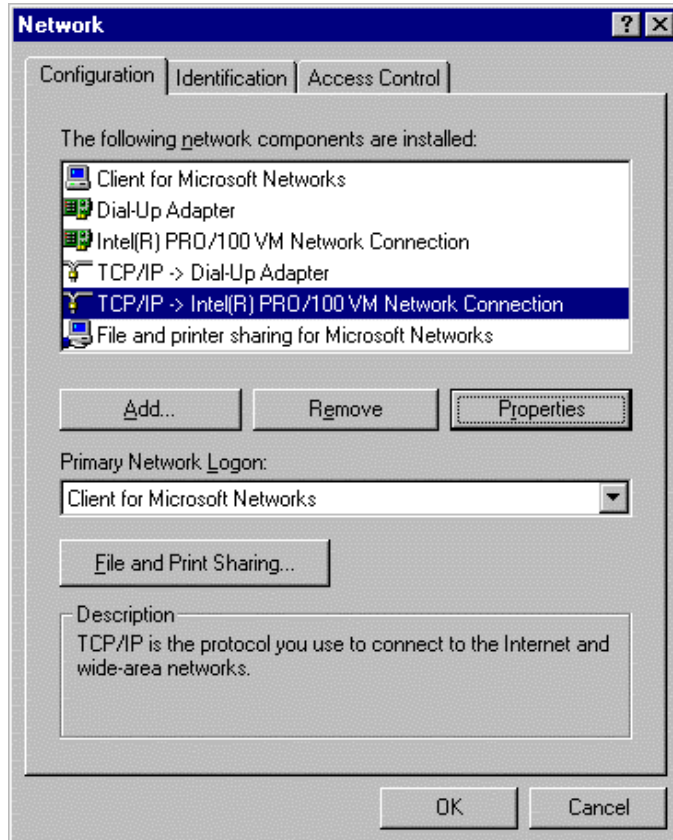
## Windows 95/98/ME

1. On the Windows desktop, click **Start | Settings | Control Panel**; then double-click the **Network** icon.

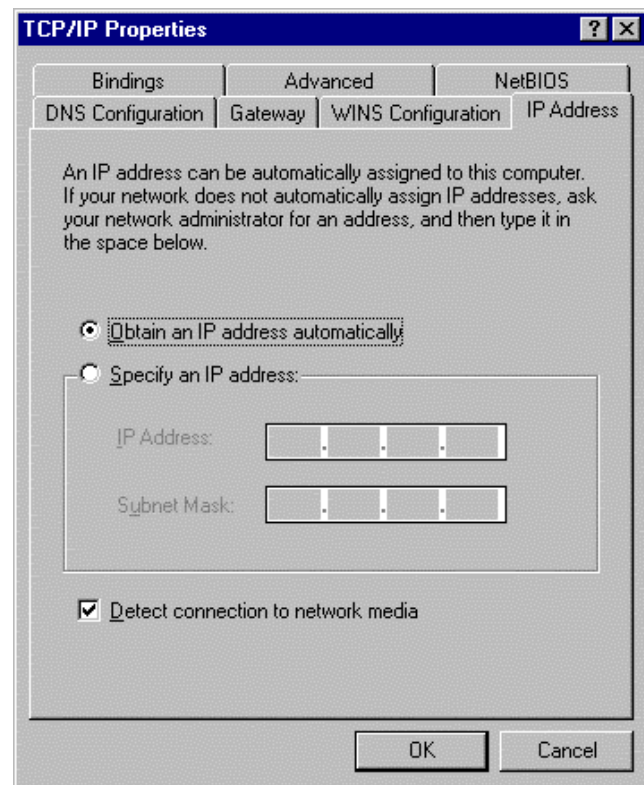
The **Network** dialog box displays.

2. On the **Configuration** tab of the **Network** dialog box, select the TCP/IP entry for your Ethernet adapter; then click **Properties**.

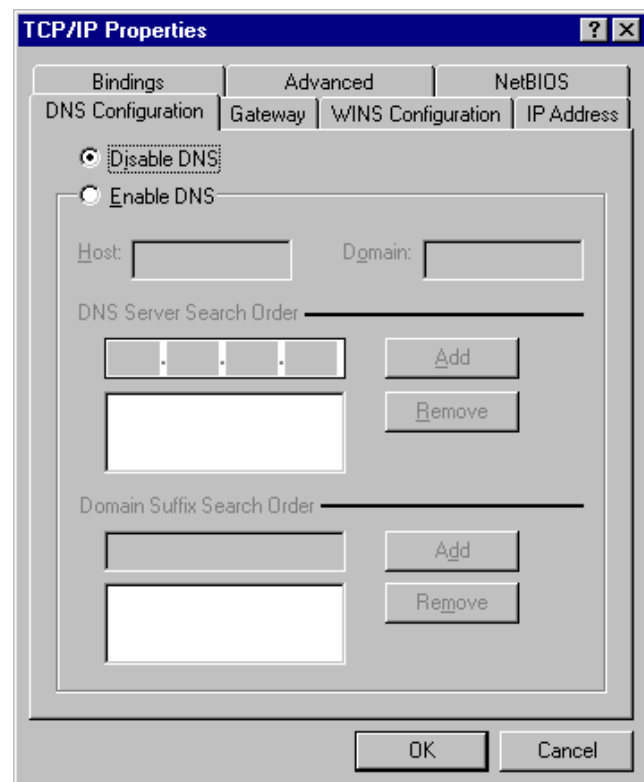
The **TCP/IP Properties** dialog box displays.



3. In the **TCP/IP Properties** dialog box, click the **IP Address** tab.
4. On the **IP Address** tab, ensure that **Obtain IP address automatically** and **Detect connection to network media** are selected.
5. Click the **DNS Configuration** tab.



3. On the **DNS Configuration** tab, ensure that **Disable DNS** is selected.
4. Click **OK** twice to save your settings.
5. Reboot if prompted.



## Windows NT 4.0

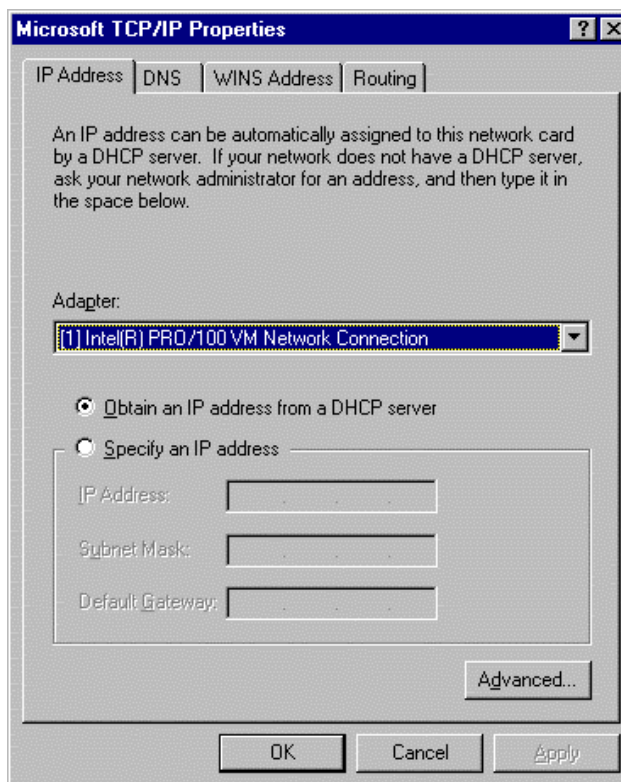
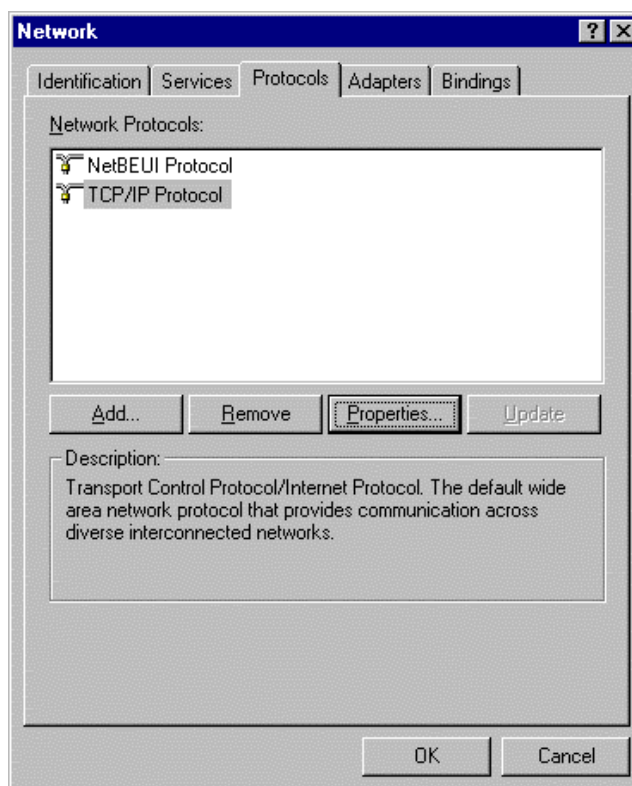
1. On the Windows desktop, click **Start | Settings | Control Panel**; then double-click the **Network** icon.

The **Network** dialog box displays.

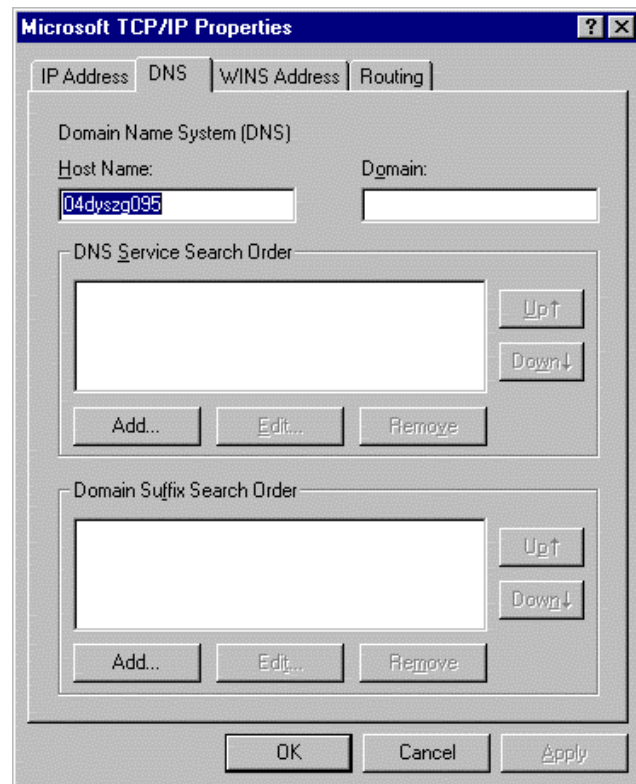
2. In the **Network** dialog box, click the **Protocols** tab.
3. On the **Protocols** tab, select **TCP/IP Protocol**; then click **Properties**.

The **Microsoft TCP/IP Properties** dialog box displays.

4. In the **Microsoft TCP/IP Properties** dialog box, ensure that the correct network adapter is selected in the drop-down menu and that **Obtain an IP address from a DHCP server** is selected; then click **OK**.



5. In the **Microsoft TCP/IP Properties** dialog box, click **DNS** tab.
6. On the **DNS** tab, delete any IP addresses listed in the **DNS Service Search Order** box.
7. Click **OK** twice to save your settings.
8. Reboot if prompted.



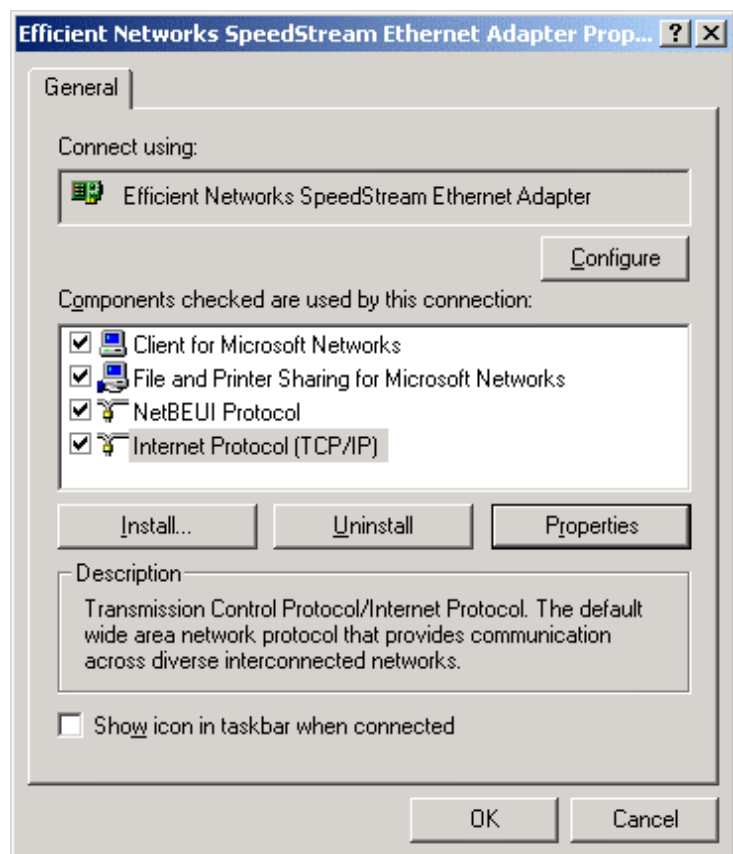
## Windows 2000

1. On the Windows desktop, click **Start** | **Settings** | **Control Panel**.
2. On the **Control Panel** menu, double-click **Network and Dial-up Connections**.

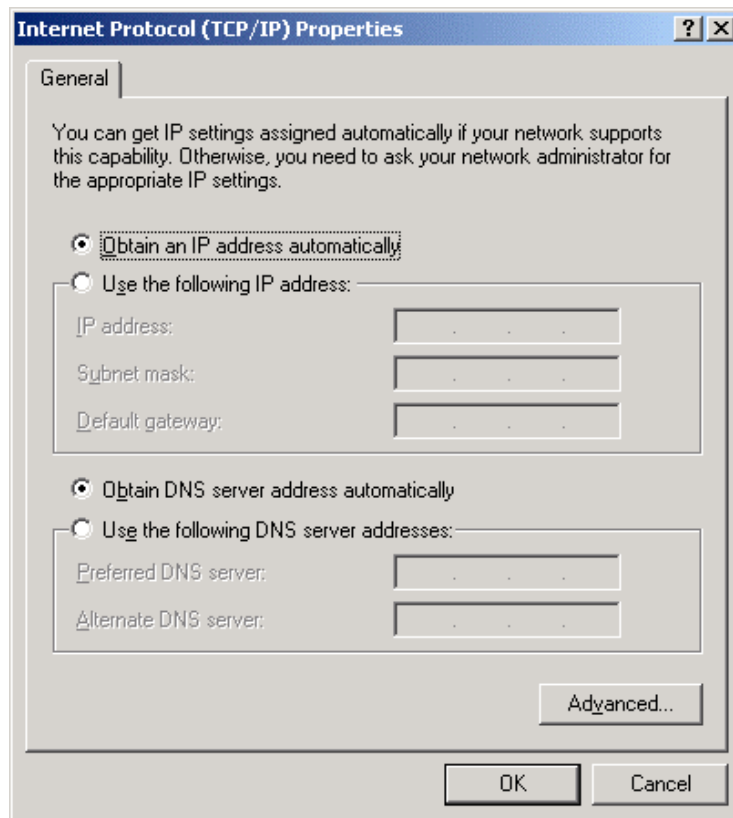
If the Ethernet card in your computer is installed correctly, the **Local Area Connection** icon will be present.

3. On the **Local Area Connection Status** box, select your LAN Ethernet adapter; then click **Properties**.
4. In the dialog box, click to highlight **Internet Protocol (TCP/IP)**; then click the **Properties**.

The **Internet Protocol (TCP/IP) Properties** dialog box displays.



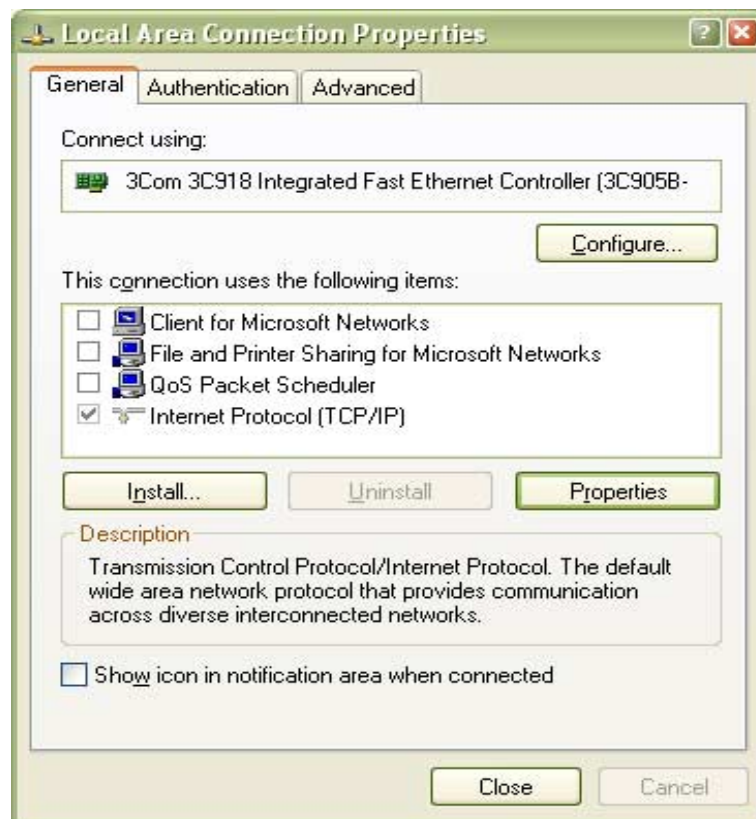
5. In the **Internet Protocol (TCP/IP) Properties** dialog box, ensure that **Obtain IP address automatically** and **Obtain DNS server address automatically** are selected.
6. Click **OK** twice to save your settings.
7. Reboot your computer if prompted.



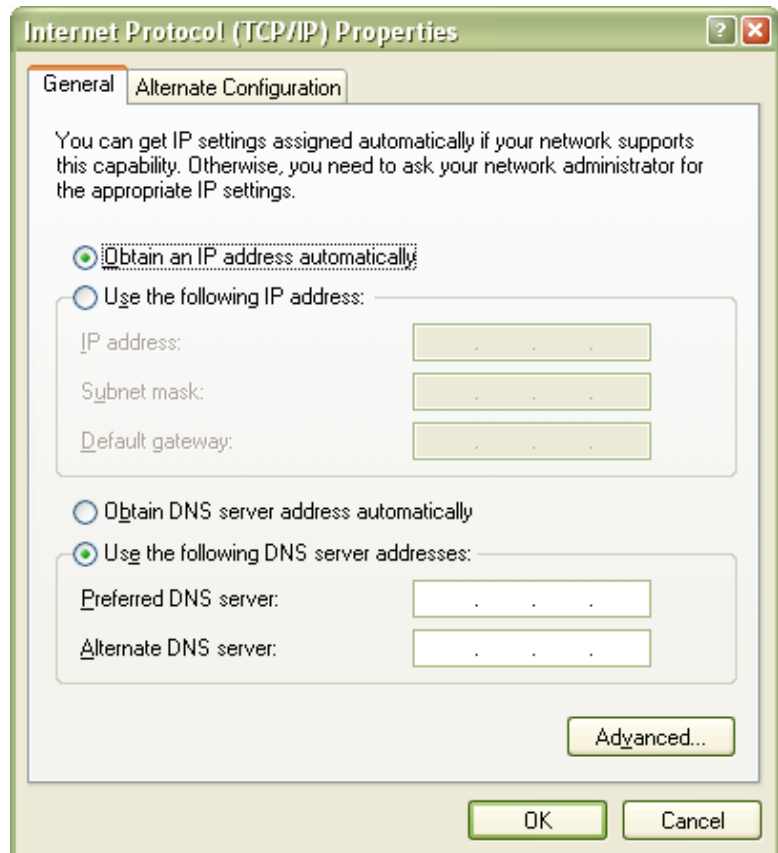
## Windows XP

1. On the Windows desktop, click **Start** | **Network Connections** | **Local Area Connection**.
2. In the dialog box, click to highlight **Internet Protocol (TCP/IP)**; then click the **Properties**.

The **Internet Protocol (TCP/IP) Properties** dialog box displays.



3. In the **Internet Protocol (TCP/IP) Properties** dialog box, ensure that **Obtain IP address automatically** and **Obtain DNS server address automatically** are selected.
4. Click **OK** twice to save your settings.
5. Reboot your computer if prompted



You can now configure the SpeedStream Dual USB/Ethernet Router as detailed in the next chapter.

## Chapter 4 Configuring the Router

Before you can configure the SpeedStream® USB/Ethernet Router with SecureRoute™, the TCP/IP protocol must be installed and configured on all computers in your network. If you need to install TCP/IP, refer to your system documentation or online help. To configure TCP/IP, refer to Chapter 3, “Configuring Network Settings” in this document.

After TCP/IP is installed and configured on your network computers, you can configure the SpeedStream router from a Web browser, including Internet Explorer or Netscape Navigator, versions 4.0 or above. The Web interface allows you to configure settings for the router, view status, and access the many features of this unit.

### Navigating the Web Interface

Using the Web interface, you can define system parameters, manage and control the router and its ports, or monitor network conditions. The management interface includes the following menus:

The screenshot displays the SpeedStream 5667 Router Management Interface. On the left is a dark sidebar with navigation links: Simple Setup, Advanced Setup, Configuration Summary, Save Configuration, and Set System Password (highlighted). The main content area has the title 'SpeedStream 5667 Router Management Interface'. Below this is the 'Simple Router Setup' section. It contains introductory text about preparing the router, a note about discovery time, and three numbered steps: 1. Enter PPPoE username and password, 2. Set the password for this modem, and 3. Set the security level for the firewall. Each step includes input fields or radio buttons. A 'Submit' button is at the bottom.

Simple Setup  
Advanced Setup  
Configuration Summary  
Save Configuration  
Set System Password

**SpeedStream 5667**  
Router Management Interface

**Simple Router Setup**

Most users can prepare their routers for use by providing the following information. If your service provider is not providing a PPPoE connection, click on the "Advanced Setup" link in the upper left-hand corner to configure your router.

It may take up to 45 seconds for the router to discover how to set up your internet connection.

1. Enter the PPPoE username and password provided by your service provider:  
Username:   
Password:

2. Set the password for this modem:  
Old Password:   
New Password:   
Confirm New Password:

3. Set the security level for the firewall:  
Firewall Mode: ☐ Off  
☐ Low with NAPT Off  
☒ Low (Factory Default)  
☐ Medium  
☐ High

Submit

<b>Simple Setup</b>	Main menu item; allows you to set PPP username and password, select a firewall setting, and change the system password. <b>Advanced Setup</b> Main menu item; provides access to advanced features for those users who require a custom router configurations, including Configuration Procedures, Status and Statistics, Command List. Also includes Initial Setup provisions and Configuration Procedures.
- <b>Configuration Procedures</b>	<b>Advanced Setup</b> menu item; provides access to user-customizable settings including WAN, LAN, PPP, DHCP, DNS, Firewall, Port Forwarding, IP Routing and RIP Configuration, and Configuration Access.
- <b>Status and Statistics</b>	<b>Advanced Setup</b> menu item; displays ADSL line stats and status.
- <b>Command List</b>	<b>Advanced Setup</b> menu item; displays commands in left vertical menu bar, descriptions and settings for modification in main screen.
- <b>Back to Start</b>	<b>Advanced Setup</b> menu item; returns to main menu and displays Simple Router Setup screen if not configured. If WAN is configured it goes to Configuration Summary.
- <b>Save Configuration</b>	<b>Advanced Setup</b> menu item; saves settings from active session – this may take up to one minute. Do not power cycle or reset the router during this operation, or the router will become non-functional.
- <b>Configuration Procedures</b>	<b>Advanced Setup</b> menu item; provides access to user-customizable settings including WAN, LAN, DHCP, DNS, Firewall, Port Forwarding, IP Routing and RIP Configuration, and Configuration Access.
<b>Configuration Summary</b>	Main menu item; displays Configuration Summary, WAN Connections, Services Summary, and System Summary.
<b>Save Configuration</b>	Main menu item; saves settings from active session - this may take up to one minute. Do not power cycle or reset the router during this operation, or the router will become non-functional.

The following table details the menu items, screen names and contents of the Web interface.

Menu	Screen Name	Description
<b>Simple Setup</b>	Simple Router Setup	<ul style="list-style-type: none"> <li>• PPP username and password</li> <li>• Router/modem password</li> <li>• Firewall and security level</li> </ul>
<b>Advanced Setup</b>		
Configuration Procedures		<ul style="list-style-type: none"> <li>• Configuration Summary</li> <li>• WAN Connections</li> <li>• Services Summary</li> <li>• System Summary</li> </ul>
Status and Statistics	DSL Status	<ul style="list-style-type: none"> <li>• DSL Status</li> </ul>

Menu	Screen Name	Description
		<ul style="list-style-type: none"> <li>• DSL Channel Info</li> <li>• DSL Physical Layer Info</li> <li>• DSL Line Status</li> </ul>
Command List <ul style="list-style-type: none"> <li>• atmping</li> <li>• dhcpcfg</li> <li>• dns</li> <li>• dslstatus</li> <li>• ethip</li> <li>• ip</li> <li>• ipgateway</li> <li>• firewall</li> <li>• password</li> <li>• ping</li> <li>• portforward</li> <li>• ppp</li> <li>• reboot</li> <li>• ripcfg</li> <li>• route</li> <li>• vc</li> <li>• wanaccess</li> </ul>	<ul style="list-style-type: none"> <li>• ATM "Ping"</li> <li>• DHCP Server/Relay Configuration</li> <li>• Configure DNS Settings</li> <li>• DSL Status</li> <li>• LAN IP Configuration</li> <li>• IP Configuration</li> <li>• IP Gateway/Default Router Configuration</li> <li>• Changing Firewall Configuration</li> <li>• Set System Password</li> <li>• Ping an IP Address</li> <li>• Server Port Forwarding</li> <li>• PPP Configuration</li> <li>• Reboot the Modem</li> <li>• Select Interface</li> <li>• Setting and Displaying Routes</li> <li>• Virtual Circuit Information</li> <li>• Enable/Disable Configuration Access from WAN</li> </ul>	Commands listed in menu area of window (left vertical bar) <ul style="list-style-type: none"> <li>• Transmit OAM loopback over ATM</li> <li>• Display/modify DHCP configuration</li> <li>• Add/modify/delete DNS settings</li> <li>• View DSL status</li> <li>• Configure LAN IP address</li> <li>• Display IP information</li> <li>• Display/modify IP gateway settings</li> <li>• Firewall and security settings</li> <li>• Set/change/deactivate password</li> <li>• Ping an IP address</li> <li>• Configure port forwarding services</li> <li>• Manually configure PPP settings</li> <li>• Reboot the router</li> <li>• Configure RIP</li> <li>• View routing table, add static routes</li> <li>• Display virtual circuit information</li> <li>• Configure WAN access through Telnet and HTTP</li> </ul>
Back to Start		Displays main menu and Configuration Procedures screen
Save Configuration		Saves current settings
<b>Initial Setup</b>		
Troubleshooting	Troubleshooting Procedures	1. Check the LEDs on the front panel. 2. Test the ATM circuit. 3. Check for IP routing problems.
Set System Password	Set System Password	Set, change or deactivate system password.
<b>Configuration Procedures</b>		
WAN Virtual Connection	Virtual Circuit Information	View/modify virtual WAN connections
LAN	LAN IP Configuration	LAN IP information.
DHCP	DHCP Server/Relay Configuration	Display/modify DHCP service configuration
DNS	Configure DNS Settings	Configure DNS servers and DNS relay
Firewall	Changing Firewall Configuration	<ul style="list-style-type: none"> <li>• View current firewall mode</li> <li>• Change firewall mode</li> <li>• Set snooze duration</li> </ul>
Port Forwarding	Server Port Forwarding	Configure one or more port forwarding services on the WAN.
IP Routing and RIP Configuration	IP Routing <ul style="list-style-type: none"> <li>• IP Configuration</li> <li>• IP Gateway/Default Router Configuration</li> <li>• Setting and Displaying Routes</li> <li>• Select Interface</li> </ul>	<ul style="list-style-type: none"> <li>• View current settings</li> <li>• Configure IP gateway</li> <li>• View/modify routing table</li> <li>• View/modify RIP configuration</li> </ul>
Configuration Access	Enable/Disable Configuration Access from WAN	Configure WAN access through Telnet and HTTP

## Accessing the Web Interface

1. In your Web browser **Address** box, enter the default router IP address **http://192.168.254.254**

6. On the **Enter Network Password** screen, enter the default username and password:

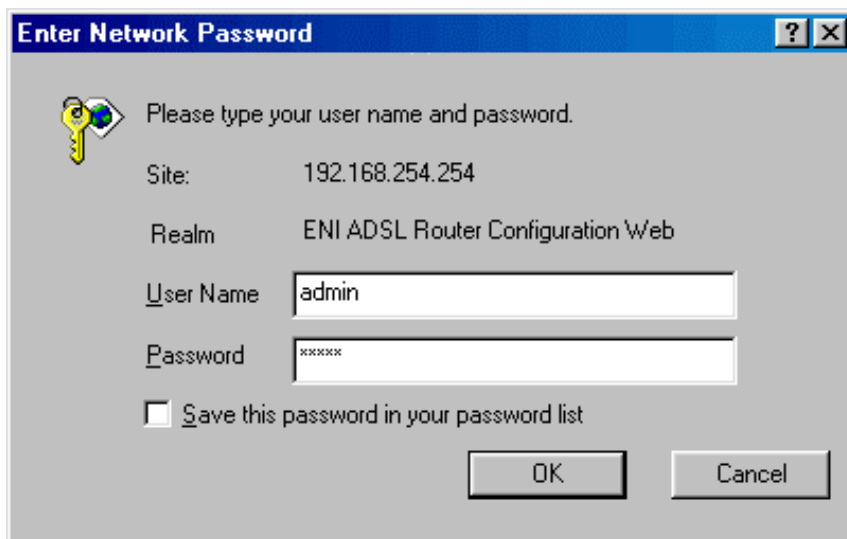
Username: **admin**

Password: **admin**

Then click **OK**. The **System Status** screen is displayed.

**Note:**

The password is case-sensitive.



**Enter Network Password**

Please type your user name and password.

Site: 192.168.254.254

Realm: ENI ADSL Router Configuration Web

User Name: admin

Password: xxxxxx

☐ Save this password in your password list

OK Cancel

## Recording System Settings

Appendix A, “Configuration Data Sheets,” provides you with a location to record the current configuration of the router. This information is important to have on file in case the configuration is inadvertently changed and the original working settings must be restored.

## Simple Setup

From the Simple Setup screen, you can configure the router for basic routing operation and entering authentication parameters.

The screenshot shows the 'Simple Router Setup' screen of the SpeedStream 5667 Router Management Interface. On the left is a navigation menu with four items: 'Simple Setup' (highlighted with a red arrow), 'Advanced Setup', 'Configuration Summary', and 'Save Configuration'. Below this menu is a link 'Set System Password'. The main content area is titled 'Simple Router Setup' and contains the following text: 'Most users can prepare their routers for use by providing the following information. If your service provider is not providing a PPPoE connection, click on the "Advanced Setup" link in the upper left-hand corner to configure your router.' and 'It may take up to 45 seconds for the router to discover how to set up your internet connection.' There are three numbered steps: 1. 'Enter the PPPoE username and password provided by your service provider:' with input fields for 'Username:' and 'Password:'. 2. 'Set the password for this modem:' with input fields for 'Old Password:', 'New Password:', and 'Confirm New Password:'. 3. 'Set the security level for the firewall:' with a 'Firewall Mode:' label and five radio button options: 'Off', 'Low with NAT Off', 'Low (Factory Default)' (which is selected), 'Medium', and 'High'. At the bottom center is an 'Apply' button.

**SpeedStream 5667**  
Router Management Interface

▶ Simple Setup  
▶ Advanced Setup  
▶ Configuration Summary  
▶ Save Configuration

▶ [Set System Password](#)

### Simple Router Setup

Most users can prepare their routers for use by providing the following information. If your service provider is not providing a PPPoE connection, click on the "Advanced Setup" link in the upper left-hand corner to configure your router.

It may take up to 45 seconds for the router to discover how to set up your internet connection.

**1. Enter the PPPoE username and password provided by your service provider:**

Username:   
Password:

You can ignore items 2 and 3 below, if you want to leave these settings at their default values.

**2. Set the password for this modem:**

Old Password:   
New Password:   
Confirm New Password:

**3. Set the security level for the firewall:**

Firewall Mode: ☐ Off  
☐ Low with NAT Off  
☒ Low (Factory Default)  
☐ Medium  
☐ High

Apply

1. From the main menu, select Simple Setup.
2. Enter username and password.

**Note:** You may ignore “Set the password for this modem” and “Set the security level for the firewall”, if you want to leave these settings at the default values.

3. Click **Apply**, if you are not changing the password for the modem and the security level for the firewall.
4. Select the system password for this modem.
5. Set the security level for the firewall.
6. Click **Apply**.

## Advanced Setup

From the **Advanced Setup** menu, you can configure advanced functions including special applications configuration, and remote management. We highly recommend that you keep the default settings unless you have a specific need to change them.

### SpeedStream 5667

Router Management Interface

#### Configuration Summary

DSL Receive Rate: 8096000  
DSL Transmit Rate: 864000  
DSL Interface State: Up  
[LAN IP Address](#): 192.168.254.254  
[LAN Subnet Mask](#): 255.255.255.0  
[Default IP Gateway](#): 172.16.103.1

#### WAN connections

Service Description	VPI	VCI	Encapsulation Protocol	Interface Type	IP Address	Subnet Mask
wanService	0	35	Rfc2684	Bridged	172.16.103.11	255.255.255.0

#### Services Summary

[DNS Relay on router](#): Disabled  
[DHCP Service on router](#): Server  
[Firewall Mode](#): Low

#### System Summary

System Type: SpeedStream 5667-R:ENI  
System Up Time: 145 hour(s), 8 minute(s), 31 second(s)  
Software Version: R4.0.0 (Pre-6) Oct 24 2001 09:34:08  
System HW Version: ENI5667 BSP v1.0.0.2 (ISOS 8.0)  
Factory MAC Address: 00:20:EA:B5:9B:FA  
DSL Phy Description: AME  
DSL Phy Version: 3.6.70

## Status and Statistics


Selecting **Status and Statistics** from the main menu displays the DSL Status screen.

# SpeedStream 5667

Router Management Interface

dslstatus

DSL Status



DSL Status

DSL State

Up

DSL Channel Info	ATU-R	ATU-C
Current TX Rate (bps)	864000	8096000
Previous TX Rate (bps)	864000	8096000
CRC Block Length	0	0
Interleave Delay	0	0

DSL Physical Layer Info

ATU-R

ATU-C

Current Attainable Rate	1004651	8096000
Current SNR Margin		
Current Attenuation		
Current Output Power		
Current Status	No Defects detected No Loss of framing detected No Loss of signal detected No Loss of power detected No Loss of signal quality detected	No Defects detected No Loss of framing detected No Loss of signal detected No Loss of power detected No Loss of signal quality detected

DSL Line Status

Line Coding

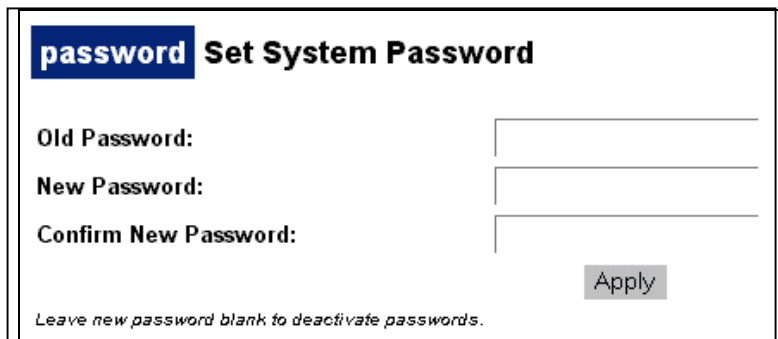
DMT

Line Type

Fast or Interleaved

## System Password

To set or change the system password, click **Set System Password** beneath the main menu or under **Initial Setup** on the **Advanced Setup** submenu.



The screenshot shows a web interface titled "password Set System Password". It contains three input fields labeled "Old Password:", "New Password:", and "Confirm New Password:". To the right of the "New Password:" field is a grey "Apply" button. At the bottom of the form, there is a note: "Leave new password blank to deactivate passwords."

## Configuration Procedures

In the **Configuration Procedures** submenu section of the **Advanced Setup** menu, you can access the screens that allow you to customize these router settings:

- WAN Virtual Connections
- LAN
- DHCP
- DNS
- Firewall
- Port Forwarding
- IP Routing and RIP Configuration
- Configuration Access


Detailed information on these functions follows.

## WAN Virtual Connection

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **WAN Virtual Connections** to view or modify virtual connection settings.

VC

Virtual Circuit Information



This table shows the currently configured virtual connections.

VPI	VCI	Encapsulation	Mux	PCR	IP Address	Netmask	DHCP
0	35	RFC2684	LLC	0	172.16.103.11	255.255.255.0	Disabled

Total AAL Connections: 1

---

To modify the WAN-side connection shown above, click on the button labelled with the type of virtual connection you want to use:

1577

Create a VC that uses RFC 1577 (IP over ATM).

PPP

Create a VC that uses PPP (Point-To-Point Protocol).

2684

Create a VC with RFC 2684 encapsulation. (This was formerly termed 1483 bridged encapsulation.)

## RCF 1577 Connection

**vc** **Virtual Circuit Information** [Online Help](#)

This table shows the currently configured virtual connection(s).

Total AAL Connections: `emweb/EwConnInfoGetCount`.

---

To create a routed IPoA virtual connection, complete all the fields of this form and click the Apply button.

VPI:

VCI:

Rate (in kilobits per second, range [1 - `emweb/EwMaxDslRate`]):  or ☒ Max (default)

☒ Use DHCP

☐ Use the following static IP address:

IP Address:

IP Netmask:

---

## PPP Connection

**vc** **Virtual Circuit Information** [On-line Help](#)

This table shows the currently configured virtual connection(s).

Total AAL Connections: emweb/EwConnInfoGetCount;

---

To create a PPPoE or PPPoA virtual connection, complete all the fields of this form a click the **Apply** button.

☒ PPPoE ☐ PPPoA

VPI:

VCI:

Multiplexing Method:

Rate (in kilobits per second, range [1 - emweb/EwMaxDslRate;]):  or ☒ Max (default)

Authentication Method:


Username:

Password:

## RCF 2684 Connection

**vc**

**Virtual Circuit Information**

 [Online Help](#)

This table shows the currently configured virtual connection(s).

**Total AAL Connections:** `emweb/EwConnInfoGetCount;`

---

To create a 2684 virtual connection, complete all the fields of this form a click the **Apply** button.

☒ Bridged

☐ Routed

VPI:

VCI:

Multiplexing Method:

Rate (in kilobits per second, range [1 - `emweb/EwMaxDslRate;`]):  or ☒ **Max** (default)

☒ Use DHCP

☐ Use the following static IP address:

IP Address:

IP Netmask:

## LAN Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **LAN** to modify the LAN IP address or subnet mask.

ethip

LAN IP Configuration

The table below allows the configuration of the LAN IP address. If you access the router by entering the old LAN IP address into your HTML browser, then you will **lose connectivity to the router** when the IP address is changed. You will have to direct the browser to the new LAN IP address to reconnect to the router.

LAN IP Information		
	Current Values	Enter New Values
IP Address:	192.168.254.254	<input type="text"/>
Subnet Mask:	255.255.255.0	<input type="text"/>

Apply

## DHCP Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **DHCP** to view or modify the current DHCP server settings.

dhcpcfg
DHCP Server/Relay Configuration

The following tables display the current DHCP service configuration and allow you to modify the configuration.

Select the **Service**:

DHCP Configuration		
	Current Values	Enter New Value
<b>Service</b>	Server	<div style="border: 1px solid #ccc; padding: 2px;"> <div style="display: flex; align-items: center;"> <span>Server</span> <span style="margin-left: 5px;">▼</span> </div> </div>

**STEP 2a.**  
If you selected Service type **"Relay"**, fill in this table:

Relay Agent Configuration		
	Current Values	Enter New Values
<b>Primary Relay IP Address</b>	0.0.0.0	<input style="width: 100%;" type="text"/>
<b>Secondary Relay IP Address</b>	0.0.0.0	<input style="width: 100%;" type="text"/>

**STEP 2b.**  
If you selected Service type **"Server"**, fill in this table:

Server Configuration		
	Current Values	Enter New Values
<b>Start IP Range</b>	192.168.254.1	<input style="width: 100%;" type="text"/>
<b>End IP Range</b>	192.168.254.64	<input style="width: 100%;" type="text"/>
<b>IP Netmask</b>	255.255.255.0	<input style="width: 100%;" type="text"/>
<b>Default Router</b>	192.168.254.254	<input style="width: 100%;" type="text"/>
<b>Primary DNS IP Address</b>		<input style="width: 100%;" type="text"/>
<b>Secondary DNS IP Address</b>		<input style="width: 100%;" type="text"/>
<b>Domain Name</b>		<input style="width: 100%;" type="text"/>

**STEP 3.**  
After filling in one of the tables, click here to submit:

Apply

## DNS Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **DNS** to add or remove DNS servers and domain search entries, and enable or disable the DNS relay.

**dns** **Configure DNS settings**

From this page, you can add/remove DNS servers, add/remove domain search entries and enable/disable the DNS relay.

**DNS Servers**

IP Address	Delete
------------	--------

Add DNS server:

IP Address:

---

**Domain Search Order**

Domain	Delete
--------	--------

Add Domain Search Entry:

Domain:

## Firewall Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **Firewall** to enable or disable the router firewall, and set the firewall security level. From this sub-menu the firewall can also be temporarily disabled via the snooze button.

firewall

Changing Firewall Configuration

This command changes the router's firewall configuration.

---

**Current Firewall Mode:** Low

**Firewall Mode:**

- ☐ Off
- ☐ Low with NAT Off
- ☒ Low (Factory Default)
- ☐ Medium
- ☐ High

Apply

---

**Enter snooze duration (in minutes):**

Snooze

The following table shows the security of each mode of the firewall as per the application/protocol. The Snooze mode is when the firewall is disabled for the time specified.

Application/Protocol	Security							
	High		Medium		Low		NAPT Off	
	In	Out	In	Out	In	Out	In	Out
HTTP		√		√		√		√
HTTPS		√		√		√		√
FTP				√		√		√
Telnet				√		√		√
Ping		√		√		√		√
SMTP				√		√		√
POP3				√		√		√
NNTP						√		√
NTP				√		√		√
ICMP		√		√		√		√

Application/Protocol	Security							
	High		Medium		Low		NAPT Off	
	In	Out	In	Out	In	Out	In	Out
IGMP				√		√		√
SSH				√		√		√
DNS		√		√		√		√
IRC						√		√
RTSP		√		√		√		√
SIP						√		√
H.323						√		√
T.120						√		√
IPSec single-session				√		√		√
IPSec multi-session				√		√		√
PPTP single-session				√		√		√
PPTP multi-session				√		√		√
PPPoE				√		√		√
L2TP				√		√		√
Real Video		√		√		√		√
Real Audio		√		√		√		√
Windows Media Player		√		√		√		√
MSN Messenger						√		√
Yahoo Messenger						√		√
AOL		√		√		√		√
AOL IM						√		√
Quicktime 4		√		√		√		√

Application/Protocol	Security							
	High		Medium		Low		NAPT Off	
	In	Out	In	Out	In	Out	In	Out
ICU II						√		√
CUSeeMe						√		√
Napster						√		√
GNUTella						√		√
ICQ 2000						√		√
Calista IP Phone				√		√		√
Buddy Phone				√		√		√
Dialpad				√		√		√
Net2phone				√		√		√
Netshow Client						√		√
Heretic II				√		√		√
Abuse.Net				√		√		√
Asherons Call				√		√		√
BattleNet				√		√		√
Bungie.Net				√		√		√
Delta Force				√		√		√
DirectPlay				√		√		√
Half Life				√		√		√
Hexen II				√		√		√
Diablo				√		√		√
Diablo 2				√		√		√
Soldier of Fortune				√		√		√

Application/Protocol	Security							
	High		Medium		Low		NAPT Off	
	In	Out	In	Out	In	Out	In	Out
doom				√		√		√
Quake II				√		√		√
Quake Arena				√		√		√
Rainbow Six				√		√		√
Kali				√		√		√
Starcraft				√		√		√
Counterstrike				√		√		√
Ultima Online				√		√		√
Unreal Tournament				√		√		√
Descent II/III				√		√		√
Red Alert II				√		√		√
Tiberian Sun				√		√		√
Dune 2000				√		√		√
Baldur's Gate II				√		√		√
Rogue Spear				√		√		√
Warcraft				√		√		√
Age of Empires				√		√		√
EverQuest				√		√		√
Myth				√		√		√
MSN Gaming Zone				√		√		√
Mplayer				√		√		√
MechWarrior 4				√		√		√

Application/Protocol	Security							
	High		Medium		Low		NAPT Off	
	In	Out	In	Out	In	Out	In	Out
Need for Speed				√		√		√
VNC						√		√
PCAnywhere						√		√
Traceroute		√		√		√		√
MS Netmeeting (Chat, White board, file transfer, audio, video)						√		√
XDM						√		√


Note: All protocols/apps are conditionally allowed IN if the outbound session was initiated locally and allowed OUT.

## Port Forwarding Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **Port Forwarding** to configure one or more port forwarding services on the WAN.

portforward


Server Port Forwarding

 Close Step

This command configures one or more port forwarding services on the WAN. A port forwarding entry needs to be configured for each type of service that you want to allow through the router when the router's **firewall** is in a mode that uses NAT (Low, Medium, High).

For example, if a host on the local area network side of the router provides a web server that users need to access from the WAN side, you would need to configure a port forwarding entry using a **Protocol** of TCP or UDP, with a **Port** of "http", and with the **IP Address** of the host system that provides the web server.

**Important Note:** Adding port forwarding entries will set the **firewall** mode to **Low** if the current firewall mode is **Medium** or **High**. If the current firewall mode is **Off** or **Low with NAT Off**, then configuring port forwarding entries has no effect. Also, if the firewall is currently snoozing, it will be taken out of the snooze mode.

Configured Ports			
Transport	Service	Server	Delete
emweb/EwNaptserverGetProto;	emweb/EwNaptserverGetPortDesc;	emweb/EwNaptserverGetServer;	 Delete Entry

To Add an entry, choose the following:

Protocol: TCP

Service: port number or Starting Port Number:  No. of ports:

Server:  or ☐ Self

Add Service Clear All Entries

## IP Routing and RIP Configuration

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **IP Routing and RIP Configuration** to:

- View current IP information for all interfaces on the router.
- Configure the IP gateway (default router).
- View or modify the Routing Table and configure static routes.
- View or modify the RIP configuration.

### IP Routing

The router uses an IP Routing Table to determine how to forward IP packets. You may need to configure static routes to certain destinations on your LAN.

The IP Gateway, also known as the Default Router, is the device that unrecognized packets will be sent to for forwarding. It is **very important** that this be set to an IP address on the same subnet as the 5600 series device.

Also, you need to make sure you are using the same Routing Information Protocol (RIP) that is being used by your network service provider. The router uses RIP2 by default.

▶ [View current IP information for all interfaces on the router](#)

▶ [Configure the IP gateway \(default router\)](#)

▶ [View or modify the Routing Table \(configure static routes\)](#)

▶ [View/modify RIP configuration](#)

## View Current IP Information

### ip IP Configuration

This display presents IP information for all of the interfaces on the router.

#### IP Information

Interface	State	DHCP	IP Address	NetMask
ppp_device	Up	No	172.16.103.11	255.255.255.0
eth0	Up	No	192.168.254.254	255.255.255.0

## Configure IP Gateway

**ipgateway** IP Gateway/Default Router Configuration

This page displays the current default IP gateway (default route) for the router. You can also modify or clear the IP address from this display.

---

**Current IP Gateway:** 172.16.103.1

**Enter new IP address:**

## View/Modify Routing Table

**route** Setting and Displaying Routes

The emweb/EwSysModeCurrentLC; uses the following static IP Routing Table to determine how to forward IP packets. The routing table shows only static entries entered manually and not those learned through RIP or ICMP redirect messages internally by the router. From this page, you can add new static routes. The default route can be added or cleared using the [ipgateway](#) command.

The **Destination** and **Netmask** specify the host or network (indicated by **Type**) to which the router will send packets.

The **Gateway** shows the directly connected host through which packets should be forwarded to reach the **Destination**.

IP Routing Table			
Destination	Netmask	Gateway	Delete
emweb/EwRouteTable.GetDstAddress;	emweb/EwRouteTable.GetNetmask;	emweb/EwRouteTable.GetGateway;	<input type="checkbox"/> Delete Entry

To Add a Static Route, enter the following:

**Destination:**

**Netmask:**

**Gateway:**

## View RIP Configuration

**RIP** **Select Interface**

Please select an interface from the following table to configure RIP:

**Select Interface**

Interface	IP Address	NetMask
<a href="#">ppp_device</a>	172.16.103.11	255.255.255.0
<a href="#">eth0</a>	192.168.254.254	255.255.255.0

## Modify RIP Configuration

After selecting the desired Interface the following screen will appear. From this screen you may select the Mode, Version, and Operation of RIP.

**ripconf** **Routing Information Protocol Configuration** [On-line Help](#)

RIP Configuration for emweb/EwRipcfgCurrentIfName;

	Current Values	Select New Values
<b>Mode:</b>	emweb/EwRipcfgMode;	<input type="text" value="Select"/>
<b>Version:</b>	emweb/EwRipcfgVersion;	<input type="text" value="Select"/>
<b>Operation:</b>	emweb/EwRipcfgOperation;	<input type="text" value="Select"/>

Apply

## Configuration Access

Under **Configuration Procedures** on the **Advanced Setup** submenu, click **Configuration Access** to enable or disable Telnet or HTTP configuration access from the WAN.

**wanaccess**

## **Enable/Disable Configuration Access from WAN**



This page lets configuration access (through TELNET, HTTP and FTP) from the WAN side to be enabled or disabled. By default, access to the router from the WAN is disabled. Note that if the firewall is switched on, enabling WAN configuration access alone will not allow incoming TELNET, HTTP or FTP connections. If the firewall is switched on, port forwarding rules have to be setup to allow incoming connections.

---

**Current WAN configuration access mode:** Disabled

**WAN configuration access:** ☐ Enable  
☒ Disable (Factory Default)

**Apply**

---

## Chapter 5

# Troubleshooting

---

Connection problems usually occur when the router's software configuration contains incomplete or incorrect information. Diagnostic tools are available to help identify and solve problems that may occur with your router.

## Using LEDs

### STEP 1: Check the LEDs on the front panel

Certain hardware problems can be diagnosed and solved by checking the LEDs. After powering on the router, all LED indicator lights turn a solid green.

If the Power (PWR) LED is off:

- Check that the power cord is firmly plugged into the back panel of the router and the other end into an active AC wall or power-strip outlet.
- Check that the power switch is turned on.

The following table shows the possible states of the LEDs (lights) on the 5667 router/bridge.

	power	adsl	act	eth	usb
<b>Unlit</b>	Off	DSL not connected	DSL not connected	Ethernet port not connected; check Ethernet cable connection if using Ethernet interface	USB port not connected; check USB cable connection if using USB interface
<b>Solid</b>	On	Ready for data traffic	N/A	Ethernet port connected to LAN	USB port connected to host
<b>Blinking</b>	N/A	Searching for signal	DSL traffic flow	Ethernet traffic flow	USB traffic flow
<b>All Blinking</b>	Post failure				

### Ethernet Link LED Status

The Ethernet LED indication on the front of the router/bridge indicates Ethernet connectivity at the hardware level.

### No Link - Unlit

This indicates that there is no Ethernet link detected. Check the Ethernet cable connection from the PC to the 5600 series device. If you have used the wrong cable, the eth LED will remain unlit and so will the LED on the Ethernet card in your PC.

### Carrier Not Detected – Not Lit

If the Ethernet LED is not lit, check the connection on the other end of the Ethernet cable.

### Carrier Detected - Solid Green

There are conditions in which the Ethernet link will not be operational when the green Ethernet LED is lit. The Ethernet interface on the host computer or hub connected to the router's Ethernet port should be set to half-duplex, no auto-negotiation. Otherwise connectivity problems can arise. Examining the Ethernet statistics that will indicate a one-sided connection usually can see this.

### STEP 2: Test the ATM Circuit

Use the ATM ping command to send OAM loopback cells on the VPI/VCI that you believe is correct. The Network Service Provider at the other end of your connection will be using a specific VPI/VCI (often it is set to 8/35). If you think you have the VPI/VCI set properly, you can use **atmping** command to send out cells on a different channel to see if there is a response.

### STEP 3: Check for IP Routing Problems

IP routing problems usually are the result of something being misconfigured. Check the following functions:

- Execute the ping command to see if the destination IP address is alive.
- Make sure the **default route (IP gateway)** is defined correctly. It must be on the same subnetwork as your router.
- Check to see that there are **static routes** set up to the specified network.
- Check whether the **Routing Information Protocol (RIP)** is supplying information or supplying erroneous information.
- If **Firewall is enabled**, and not snoozing, IP packets will stop at the router depending upon the level at which the firewall is running. Check the Firewall configuration. Firewall events are logged to the console.

## Connection Problems

If you cannot connect your PC to the target router for configuration:

For a LAN connection, verify that the router's IP address matches the IP address previously stored into the router's configuration. You must have previously set the router's Ethernet LAN IP address and subnet mask, saved the Ethernet configuration changes, and rebooted the router for the new IP address to take effect.

Check that your LAN cable is pinned correctly and each pin end is securely plugged in.

Make sure the PC and target router are on the same IP subnetwork or the target router is reachable through a router on your LAN. They can, however, be on different networks if IP routing is off.

Check Network TCP/IP properties under Windows 95 and the control panel of the TCP/IP driver installed.

## Troubleshooting: ATM Connectivity

The ATM physical layer provides a mechanism for monitoring *cell delineation*. The cell delineation function allows the identification of cell boundaries in the payload. The emweb:EwSysModeCurrentLC; software monitors Out of Cell Delineation (OCD) alarms which indicate that there are errors found in the payload. If the OCD condition persists for greater than 2.5 seconds, it will cause the DSL line to retrain.

You can test the health of the ATM link by manually sending Operations and Maintenance (OAM) cells over a specified virtual connection. This command requires the specification of:

- OAM loopback cell type - either F4 or F5
- Transmit over a single LAN segment (one hop) or end-to-end
- VPI/VCI number of connection to transmit OAM cell over

The response section of the web page will indicate if an OAM reply has been received for the transmitted OAM cell.

## Login Password Problems

You have been prompted for the login password and received the following message: Login Password is invalid.

Type the correct password and press enter. Remember that the password is case-sensitive. If the password is admin, check that you are entering it in lowercase and that the Caps key is not active.

If you have forgotten the password, you must reset the login password.

## DSL Line Training

If the DSL line is retraining frequently, it may be that there are errors in the ATM traffic that is causing out-of-cell delineation alarms. If there is an OCD alarm state for more than 2.5 seconds, the DSL line will retrain.

The DSL LED on the front of the router will indicate green when the DSL line has been operational for 10 seconds.

Check the **DSL Status** page for details.

## PPP Troubleshooting

### Capture a PPP Trace for Debugging

1. Unplug DSL cable.
2. Using Simple setup, enter username/password.
3. Select Transfer from the main menu, then select Capture Text.
4. Enter the following command via console:  

```
ppp event {1-9} (9 displays all PPP information)
event show (enables logging)
```
5. Insert DSL cable.
6. Once showtime (DSL sync) is reached, the 5667 will attempt to connect.
7. Capture log for an unspecified amount of time.
8. Stop capture.
9. Enter the command 'event unshow' to turn off logging.

## Appendix A

# Configuration Data Sheets

Your router is preconfigured with settings specific to your network. Recording these settings is important in case your router is inadvertently reset to the default configuration and you need to reestablish your original configuration.

Use the following worksheets to record your router's current configuration. The worksheets are organized on the following pages according to the following services and features: Simple Setup settings, router configuration, password information, and settings for LAN IP, DHCP, DNS, RIP, and NAPT.

### Simple Setup

The options in Simple Setup allow you to configure the router for basic routing operation and require only the configuration of the PPP type and PPP authentication parameters. The router uses the factory default parameters for all other operational parameters

Parameter	Default Value	Your Value
PPP Authentication		
Username	(Provided by IP)	
Password	(Provided by IP)	

### Router Configuration

Parameter	Default Value	Your Value
ATM VC VPI VCI	0 0 0 0 0 8 1 23 35 36 37 38 35 35	
Multiplexing (encapsulation) Mode	LLC/SNAP	LLC/SNAP   VC Multiplexing
Connection Type	(Not used when in PPPoE/PPPoA mode)	Bridge   Router
Local IP Information (if router connection type) ADSL IP Address ADSL IP Subnet Mask	None None	
PPP Type	PPPoE	PPPoA   PPPoE
PPP Authentication Username Password	None None	

Parameter	Default Value	Your Value
Authentication Method	CHAP	CHAP   PAP

## Service/Feature Configuration

### Router Password Settings

Use this form to record your username and password for accessing the router.

Parameter	Default Value	Your Value
Password Username Password	admin admin	

### LAN IP Settings

Use this form to configure Ethernet LAN IP settings.

Parameter	Default Value	Your Value
LAN IP IP Address Subnet Mask	192.168.254.254 255.255.255.0	

### DHCP Settings

Use this form to record DHCP settings.

Parameter	Default Value	Your Value
LAN IP Address	192.168.254.254	
Subnet Mask	255.255.255.0	
DHCP Mode	server	save   relay   disable
Assign address pool range Beginning IP Address End IP Address	On 1 (range: 1 to 253) 64 (range: 1 to 253)	on   off
DNS Server IP Address	none	

### Firewall Configuration

Use this form to record Firewall settings.

Parameter	Default Value	Your Value
Mode	low	
Snooze	30	

### Port Forwarding Configuration

Use this form to record Port Forwarding settings.

Parameter	Default Value	Your Value
23/telnet	192.168.254.254	
21/ftp	192.168.254.254	
80/http	192.168.254.254	

### RIP Settings

Use this form to record RIP settings.

Parameter	Default Value	Your Value
Mode	off	on   off
Destination network ID	none	
Destination subnet mask	none	
Next hop IP	none	

## Appendix B

# Technical Specifications

### Routing

- RFC 2364 Point-to-Point protocol over ATM PVCs (PPPoA)
- RFC 2684 (formerly 1483) Bridged Ethernet and routed encapsulation
- RFC 1577 Classical IP over ATM
- Network Address Port Translation (NAPT)
- DHCP server and DNS relay agent
- Configurable PAP and CHAP authentication
- Packet filtering
- Point-to-Point protocol over Ethernet (PPPoE)

### Management

- Intuitive, Web-based GUI management access
- SNMP support
- Comprehensive hardware diagnostics
- Local and remote management console

### Media Interface

- RJ-11 ADSL WAN connection
- 10Base-T RJ-45 Ethernet LAN connection
- USB LAN connection

### Standards Compliance

- IEEE 802.3
- USB 1.0

### Diagnostic LEDs

- Power, ADSL, Activity, Ethernet status, USB status

### Power

- 18VAC, 0.8A power supply included

### Certifications

- FCC Part 15, Class B
- CE certification